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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/710,253

06/29/2004

Rolf Hohmann

27475/05337

4252

24024 7590 12/18/2006  
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CLEVELAND, OH 44114

EXAMINER

MITCHELL, KATHERINE W

ART UNIT

PAPER NUMBER

3677

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

12/18/2006

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/710,253	HOHMANN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Katherine W. Mitchell	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 8, 10-14, 18, 20, 21 and 23-31 is/are pending in the application.
- 4a) Of the above claim(s) 3, 4, 10, 11, 14, 20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8, 12, 13, 18, 23, 24 and 26-31 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Oath/Declaration***

1. Examiner Repeats: Examiner suggests carefully reviewing the submitted Oath/Declaration to ensure that the inventors are correct. The Application Data Sheet named 5 inventors. The Oath/Dec lists 6 inventors, adding Chris Irgens, and adds a 7<sup>th</sup> inventor, listed as a 2<sup>nd</sup> third inventor (i.e, there are 2 people listed as third inventors), Michael Sheridan.

### ***Claim Objections***

2. Examiner Repeats: Claim 1 and 12 and 27 are clarified to clarify the following informalities: examiner assumes the retention means secures the locking member in the first position OR the second position, not the first position and the second position, which would seem impossible. Applicant discloses that the retention means secures the locking member in the 1<sup>st</sup> AND 2<sup>nd</sup> position, which would imply, if not require, that the member be in the 1<sup>st</sup> and 2<sup>nd</sup> position at the same time. Examiner assumes applicant means --secures said locking member in either the first or the 2<sup>nd</sup> position.--. Since this appears to be a clear typing error, applicant can amend without this being new matter. Appropriate correction is required.

### ***Specification***

3. Examiner Repeats: The disclosure is objected to because of the following informalities: In paragraph [0029], applicant is referring to the fourth, not the third, embodiment. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

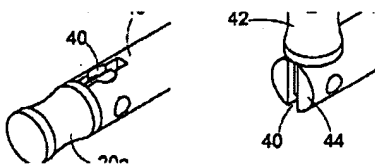
4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. How can 3 cut outs be disposed approx. 90 degrees apart

from each other? Looking at Fig 1 and 2,



"40" on the upper shaft is 90 deg apart from "40" on the shaft end, but it is certainly NOT 90 deg apart from the unshown "40" on the underside of shaft -- those are 180 degrees apart from each other.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

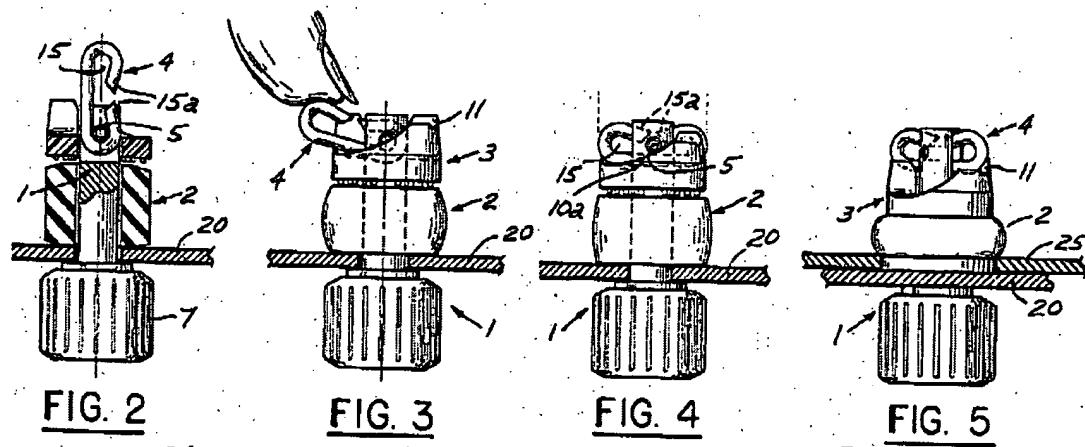
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Modrey USP 3279302.

Modrey teaches an integrated pin and clip, comprising a shaft 6 with a locking member 4 at a first end of said shaft, a cylindrical end portion (4 is inherently cylindrical --it is wire and shown in the figures as round wire), with the locking member movable between a 1<sup>st</sup> position and a 2<sup>nd</sup> position wherein the cylindrical member 4 is generally coaxial with said shaft in 1<sup>st</sup> position (Fig 2) and perpendicular to said shaft in said 2<sup>nd</sup> position (Fig 3-5), and a retaining means (cam/sleeve/pin interaction, col 2 lines 9-52

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and col 4 lines 5-64), such that compressive force and its release secures the locking member in said first position and said 2<sup>nd</sup> position.



Re claim 2: Angled end member is beveled knob 7.

RE claim 23: The cylindrical end portion includes at least one indented portion - the loop is slightly tapered/indented toward the center (figures)

8. Claims 27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Modrey USP 3279302.

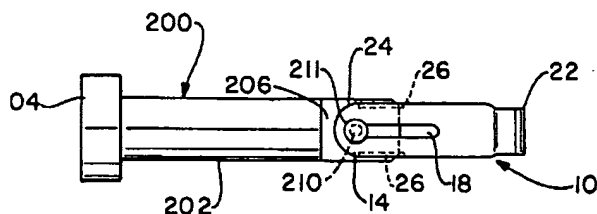
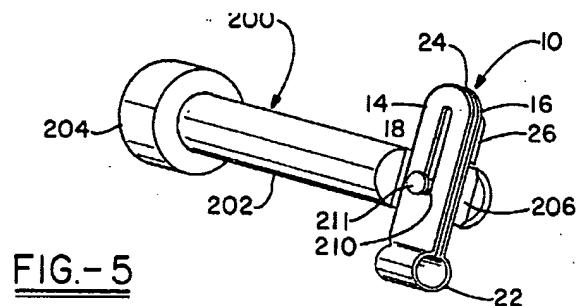
Modrey teaches an integrated pin and clip, comprising a shaft 6 with a locking member 4 at a first end of said shaft, with the locking member movable between a 1<sup>st</sup> position and a 2<sup>nd</sup> position wherein the locking member 4 is generally coaxial with said shaft in 1<sup>st</sup> position (Fig 2) and perpendicular to said shaft in said 2<sup>nd</sup> position (Fig 3), and a retaining means (cam/sleeve/pin interaction, col 2 lines 9-52 and col 4 lines 5-64), such that compressive force and its release secures the locking member in said first position and said 2<sup>nd</sup> position. In this case, 2<sup>nd</sup> position is the intermediate position

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shown in Fig 3, where the locking member extends from only one side of the shaft, and in this 2<sup>nd</sup> position, the locking member is generally perpendicular to the shaft.

9. Claims 12-13 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Collister USP 5507611.

Collister teaches an integrated pin and clip, comprising a shaft 102 with a locking member at a first end of said shaft, with the locking member movable between a 1<sup>st</sup> position and a 2<sup>nd</sup> position wherein the locking member 10 in the 1<sup>st</sup> position (Fig 4) allows for insertion and removal of said pin into a receiving hole and said 2<sup>nd</sup> position (Fig 3) does NOT allow for insertion and removal, a retaining means (spring action such that locking member acts like tweezers with retaining wings 26, such that compressive force and its release secures the locking member in said first position and said 2<sup>nd</sup> position, wherein the shaft includes at least one cut out portion



on an outer surface (recess 206, Fig 5 and

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6), sized to receive the locking member in seated engagement and retain the locking member in the 2<sup>nd</sup> position (Fig 5).

Re claim 13: The face of 204 at a 2<sup>nd</sup> end of shaft is angled with respect to (wrt) the shaft. Note also col 5 lines 1-10 specifically allow different arrangements, including a reference to Fig 30 of USP 3861267, which has an angled 2<sup>nd</sup> head exactly as described by applicant.

Re claim 26: The locking member is pulled out of engagement with the cut out to allow it to be rotated from the second to the first position.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Collister USP 5507611 as applied above in view of USP 5865559 to Yang OR USP 6193260 to Homan or Edwards USP 1144700.

Modrey teaches all the elements except nubs on the shaft. Yang teaches nubs or protrusions "49" on the shaft to assist with alignment when used with an opening having slots or grooves in col 3 lines 1-4 and col 4 lines 9-12. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Modrey and Yang before him at the time the invention was made, to modify Modrey as taught by Yang to include nubs or protrusions, in order to obtain alignment when used with mating apertures having

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slits or grooves. One would have been motivated to make such a combination because better alignment and easier insertion would have been obtained, as taught/suggested by Yang.

Modrey teaches all the elements except nubs on the shaft. Homan teaches nubs "165, 145" on the shaft to assist with engagement of other members, such as a spring or cap, or to protect the shaft from damage.

The retainer latch assembly 90 also incorporates a receptacle cap 150 that is attached to the open end 100 of the receptacle 95. The cap 150 cooperates with the spring seat pin 145 to capture an extension spring 160, or a compressible resilient member, not shown but known in the art, made from an elastic polymer such as rubber, that is sized for receipt about the medial portion 140 and within the recess 97. The type of spring shown in FIG. 2 is also sometimes referred to as a compression spring by those with skill in the art. The receptacle cap 150 can be made, for example, from a pipe cap having a diameter of about 0.75 inches such as that available from the Federal Government as part number

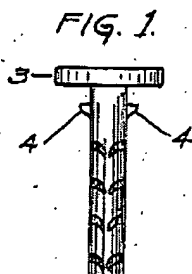
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pressible resilient member. In this configuration, the extension spring 160 is operative to bias the spring seat pin 145, and in turn the latch pin 110, towards the extended position. The latch pin 110 may also include an extended position limit pin 165 that is included between the medial portion 140 and the handle end 125 that is operative to limit the extent to which the latch pin 110 extends when in the extended position. This pin 165 can be useful to minimize the possibility of damage occurring to the handle 130 when the hitch pin retainer assembly 10 is subjected to severe vibrations during operation.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Modrey and Homan before him at the time the invention was made, to modify Modrey as taught by Homan to include nubs, in order to assist in securing auxiliary components onto the shaft or protecting the shaft.

Modrey teaches the claimed invention but does not teach protruding nubs on the shaft. Edwards teaches projecting lugs 4 to prevent the head from being driven all the way in, thus making it easier to grip the 2<sup>nd</sup> end for removal.





Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Modrey and Edwards before him at the time the invention was made, to modify Modrey as taught by Edwards to include nubs, in order to assist in easily gripping, removing or rotating the 2<sup>nd</sup> end when it is inserted into an aperture.

12. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Collister USP 5507611 as applied above in view of USP 5865559 to Yang OR USP 6193260 to Homan or Edwards USP 1144700.

Collister USP 5507611 teaches all the elements except nubs on the shaft. Yang teaches nubs or protrusions "49" on the shaft to assist with alignment when used with an opening having slots or grooves in col 3 lines 1-4 and col 4 lines 9-12. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Collister and Yang before him at the time the invention was made, to modify Collister as taught by Yang to include nubs or protrusions, in order to obtain alignment when used with mating apertures having slits or grooves. One would have been motivated to make such a combination because better alignment and easier insertion would have been obtained, as taught/suggested by Yang.

Collister USP 5507611 teaches all the elements except nubs on the shaft. Homan teaches nubs "165, 145" on the shaft to assist with engagement of other members, such as a spring or cap, or to protect the shaft from damage.

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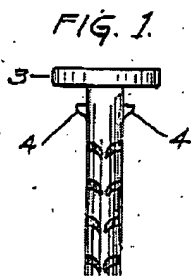
The retainer latch assembly 90 also incorporates a receptacle cap 150 that is attached to the open end 100 of the receptacle 95. The cap 150 cooperates with the spring seat pin 145 to capture an extension spring 160, or a compressible resilient member, not shown but known in the art, made from an elastic polymer such as rubber, that is sized for receipt about the medial portion 140 and within the recess 97. The type of spring shown in FIG. 2 is also sometimes referred to as a compression spring by those with skill in the art. The receptacle cap 150 can be made, for example, from a pipe cap having a diameter of about 0.75 inches such as

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pressible resilient member. In this configuration, the extension spring 160 is operative to bias the spring seat pin 145, and in turn the latch pin 110, towards the extended position. The latch pin 110 may also include an extended position limit pin 165 that is included between the medial portion 140 and the handle end 125 that is operative to limit the extent to which the latch pin 110 extends when in the extended position. This pin 165 can be useful to minimize the possibility of damage occurring to the handle 130 when the hitch pin retainer assembly 10 is subjected to severe vibrations during operation.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Collister USP 5507611 and Homan before him at the time the invention was made, to modify Collister USP 5507611 as taught by Homan to include nubs, in order to assist in securing auxiliary components onto the shaft or protecting the shaft.

Collister USP 5507611 teaches the claimed invention but does not teach protruding nubs on the shaft. Edwards teaches projecting lugs 4 to prevent the head from being driven all the way in, thus making it easier to grip the 2<sup>nd</sup> end for removal.



Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Collister USP 5507611 and Edwards before him at the time the invention was made, to modify Collister USP 5507611 as taught by Edwards to include nubs, in order to assist in easily gripping, removing or rotating the 2<sup>nd</sup> end when it is inserted into an aperture.

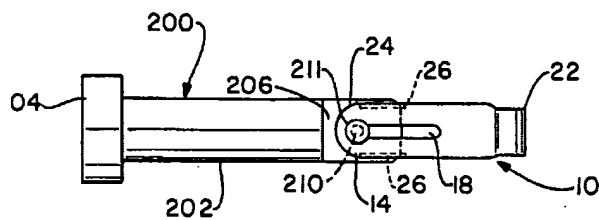
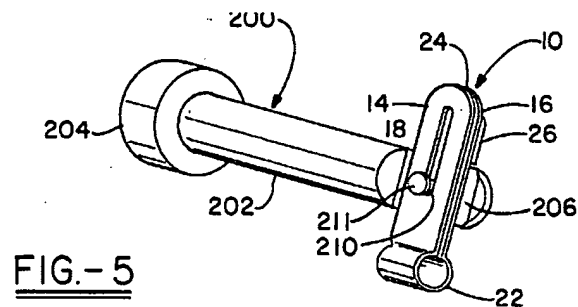
13. Claims 27-31 are rejected under 35 U.S.C. 103(a) as being obvious over Collister USP 5507611.

Collister teaches an integrated pin and clip, comprising a shaft 202 with a locking member at a first end of said shaft, with the locking member movable between a 1<sup>st</sup> position that is *generally* coaxial with the shaft member and a 2<sup>nd</sup> position that is perpendicular to the shaft member, a retaining means (spring action such that locking member acts like tweezers with retaining wings 26, such that compressive force and its release secures the locking member in said first position and said 2<sup>nd</sup> position.

However, Collister fails to teach that the locking member extends from only one side of the shaft. Absent some showing of criticality, the claimed shapes are nothing more than several of numerous shapes a person of ordinary skill in the art would find obvious for the purpose of providing a locking pin to a shaft. In re Dailey 149 USPQ 47 (CCPA 1976). Further, changes in size or shape without special functional significance are not patentable. *Research Corp.v. Nasco Industries, Inc.*, 501 F2d 358; 182 USPQ 449 (CA 7) cert. Denied 184 USPQ 193; 43 USLW 3359 (1974). As long as the end is blocked from being removed from a hole, there would be times when having the locking member extend from only one side would obviously be beneficial to one of ordinary skill in the fastener arts-- when there is insufficient clearance or cramped space, for example.

A portion of the locking member is cylindrical - end 22.

There is a cut out on the outer surface of the shaft (206) sized to receive the locking member in seating engagement and retain the locking member in the 2<sup>nd</sup> position. (Fig 5). The locking member is adapted to be pulled out of engagement with the cut out to allow rotation between 1<sup>st</sup> and 2<sup>nd</sup> positions.



***Response to Arguments***

14. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

***Allowable Subject Matter***

15. Claim 24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

16. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

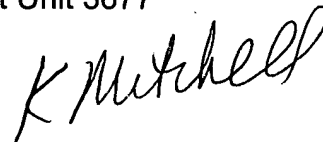
18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Katherine W Mitchell  
Primary Examiner  
Art Unit 3677

A handwritten signature in black ink, appearing to read 'K Mitchell', written in a cursive style.

National Pearl Harbor Remembrance Day, 2006